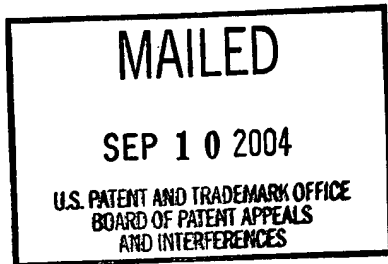


The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**



Ex parte LARRY ALAN WESTERMAN

Appeal No. 2003-1752
Application No. 08/985,576

ON BRIEF

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**DIRECTOR OFFICE
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Before KRASS, BARRY, and LEVY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-5, 7-14, and 16-36. The appellant appeals therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

The invention at issue on appeal is a document classification system that incorporates "eye gaze information." (Spec. at 1.) According to the appellant, "indexing" is the primary challenge in automated document management. Indexing involves assigning to each document, or part of a document, a synthetic descriptor facilitating its retrieval. (*Id.*) Because of the difficulty in addressing the content of an

image using traditional textual query languages and indices, they add, images within a document deserve special attention. (*Id.* at 2.)

The appellant asserts that the eye of a viewer is drawn toward the important part of an image. In an image showing grass with a tiger standing in a corner, for example, the viewer's gaze is directed toward the tiger. (*Id.* at 8.) Accordingly, the appellant's invention determines a "non-closed loop portion," (*id.* at 6), i.e., a "general region of interest," of an image observed by the viewer, (*id.* at 8), and generates "gaze information" representing the non-closed loop portion. (*Id.* at 6.) The invention associates the image with the non-closed loop portion thereof. An image processor analyzes the image based on the image and the gaze information to determine the content of the image. The invention then associates the content with the image. (*Id.* at 7.)

A further understanding of the invention can be achieved by reading the following claim.

12. An image system comprising:

(a) an image processor which analyzes an image based at least in part on said image itself together with data representative of gaze information to determine the content of said image, where said gaze information is a non-closed loop portion including multiple points of said image that an eye of a view observes wherein said viewer observes each of said multiple points; and

(b) said imaging system associating said content, determined based at least in part upon said multiple points with said image.

Claims 1-5, 7-14, and 16-36 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,627,586 ("Yamasaki").

OPINION

Rather than reiterate the positions of the examiner or the appellant *in toto*, we focus on the point of contention therebetween. The examiner asserts, "vector detection zone 68 within the image plane 66, comprising [sic] multiple pixel points P11 to P44. The vector detection zone viewed by the operator, (viewer), through the camera 10." (Examiner's Answer at 9.) The appellant argues, "the detection region 68 is a region superimposed by the system based upon the tracking operation and not a set of pixels that the viewer observes with the eye gaze system." (Reply Br. at 2.) He adds, "as taught by Yamasaki the viewer observes the single gazing point P." (*Id.*)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe claims at issue to determine their scope. Second, we determine whether the construed claims are anticipated.

1. CLAIM CONSTRUCTION

"Analysis begins with a key legal question — *what is the invention claimed?*" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). "[T]he main purpose of the examination, to which every application is subjected, is to try to make sure that what each claim defines is patentable. [T]he name of the game is the claim. . . ." *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) (quoting Giles S. Rich, *The Extent of the Protection and Interpretation of Claims --American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499, 501 (1990)).

Here, claim 12 recites in pertinent part the following limitations: "gaze information is a non-closed loop portion including multiple points of said image that an eye of a view observes wherein said viewer observes each of said multiple points. . . ." Claims 1, 19, and 28 include similar limitations. Giving the independent claims their broadest, reasonable construction, the limitations require that gaze information includes multiple points of an image that a viewer observes with his eye.

2. ANTICIPATION DETERMINATION

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous*

Sprout Litig., 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Here, Yamasaki "provide[s] a moving body detection device of a camera capable of easily selecting a desired area from a wide area of the image plane of an image of the camera, detecting slowly and rapidly moving objects, and accurately detecting an area in which a desired object lies by simple operation even if the camera moves." Col. 2, ll. 17-23. "[T]he position of a gazing point observed by the photographer can be detected by means of a photographing lens 56, mirror 58, mat 60, condenser lens 62, penta-prism 64 and dichroic mirror 48." Col. 6, ll. 32-35. As shown in Figure 2A, "a gazing point mark P'+ is moved to a position near an object OBJ by the operator. If the switch SW (refer to FIG. 1) is turned on, a moving body detection zone of large area

is superimposed with the '+' mark of FIG. 2A set at the center as shown in FIG. 2B."

Col. 5, ll. 52-56.

If the examiner is equating the gazing point observed by the photographer, or the gazing point mark positioned by him, to the "gaze information" of the claim, we are uncertain that the gazing point or the gazing point mark includes multiple points of an image that the photographer observes with his eye.¹ If the examiner is equating the moving body detection zone to the "gaze information" of the claim, although we agree with him that the moving body detection zone comprises multiple pixels including "representative pixels ($P_{(1,1)}$, $P_{(1,2)}$, - - -, $P_{(4,4)}$)," col. 6, ll. 61-62, we are uncertain that the moving body detection zone constitutes gaze information.

The absence of "gaze information . . . including multiple points of said image that an eye of a view observes wherein said viewer observes each of said multiple points" negates anticipation. Therefore, we reverse the anticipation rejection of claim 1; of claims 2-5 and 7-11, which depend therefrom; of claim 12; of claims 13, 14, and 15-18,

¹The principle for detecting the direction of a line of sight and indicating a desired area in an image plane based on the detected direction used by Yamasaki is "described in detail in . . . Japanese Patent Disclosure No. H.2-5, Japanese Patent Disclosure No. H.2-65834, or Institute of Electronic and Communication Engineers of Technical Papers PRU88-73, pp17-24." Col. 6, ll. 8-15. Although one of these documents may resolve our uncertainty, the documents are absent from the record.

which depend therefrom; of claim 19; of claims 20-27, which depend therefrom; of claim 28; and of claims 29-36, which depend therefrom.

CONCLUSION

In summary, the rejection of claims 1-5, 7-14, and 16-36 under § 102(e) is reversed.

Ernest R. Runk

LANCE LEONARD BARRY
Administrative Patent Judge

Stuart S. Levy
STUART S. LEVY

STUART S. LEVY
Administrative Patent Judge

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CHERNOFF VILHAUER MCCLUNG & STENZEL
1600 ODS TOWER
601 SW SECOND AVENUE
PORTLAND , OR 97204